

State Engineer's Office

HERSCHLER BUILDING, 1W CHEYENNE, WYOMING 82002 (307) 777-6150 MATTHEW H. MEAD GOVERNOR PATRICK T. TYRRELL

STATE ENGINEER

September 12, 2018

Senator Larry Hicks, Chairman, Senate Agriculture, State and Public Lands and Water Resources Committee

Representative Hans Hunt, Chairman, House Agriculture, State and Public Lands and Water Resources Committee

Members, Joint Agriculture, State and Public Lands and Water Resources Committee

Re: State Engineer Testimony on 19LSO-0095; Water Banking

Chairmen and Committee Members:

This letter transmits my testimony on the current Working Draft of 19LSO-0095 entitled Water Banking. First, I want to thank the Committee for taking up this important topic. While not necessarily easy in solution, a thorough discussion of the water bank concept prior to developing legislation is critical. This testimony therefore does not offer a line-by-line review of the current draft bill, but hopefully highlights questions and points of view that inform the evolution of potential water banking legislation going forward. At the outset, let me observe that the development of a useful water banking bill, with significant debate and the necessary involvement of many stakeholders, will take time. So, the task should be set about with patience, and developed after taking the topic border to border for input.

As an overarching issue, the purpose of a water bank must be clearly understood and articulated. Is it only for use in times of water scarcity such as drought, or will it operate continuously? Is it for interstate compact compliance or intrastate marketing? Both perhaps? Might it be used for Endangered Species Act compliance? These questions are not clearly addressed in the initial draft bill. Additionally, whether the bank should apply statewide as opposed to the Colorado River Basin only as currently drafted has also been raised. This is another fair question to ask, although some water banks in the west have been set up to be river-basin specific. If the water bank is to apply statewide, it

must be remembered that each of Wyoming's river basins are unique with specific needs and constraints that must be considered.

Generally, water banks elsewhere have been designed to facilitate the transfer of water from existing uses to new or other uses on a temporary basis. They are meant to provide flexibility and escape historic constraints to water transfers commonly found under the doctrine of appropriation—such as water being appurtenant to the land it irrigates. Typically, water banks are simple brokers or clearinghouses designed to accept water from a willing supplier and make it available to a willing buyer while doing all the accounting (money and water) in-house. Banks are administered by a separate entity which may or may not be governmental, with transparent fee structures, banked water quantification processes, and transaction rules. While they can receive, hold, and market water held under valid water rights owned by others, the bank itself does not need a water right nor does the bank itself need to be a beneficial use—the beneficial use being satisfied by the proposed use of the buyer and water right of the seller. Obviously, banks need either a physical place to hold banked water—in a reservoir or underground—or some other virtual mechanism to account for water passing hands in a transaction. The current draft bill appears to authorize the typical ease-of-transfer purpose of water banks by authorizing water banking for any beneficial use.

The current draft also seeks to authorize water banking for interstate compact compliance purposes and its scope is limited to the Colorado River Basin. Accordingly, it's helpful to review the guidelines for "banking" that have existed on the Colorado River mainstream since 2007 and that have been part of negotiations as all seven Colorado River states have worked on Drought Contingency Planning since 2014. This kind of "banking"—termed intentionally created surplus—usually revolves around conserving previously consumed or diverted water. In the Lower Basin ("LB") of the Colorado River (Arizona, California and Nevada), water orders are reduced and the water is left — at least temporarily — in Lake Mead. And since all Lower Basin States have at one time or another either diverted or consumed their full apportionment, this is an easy conservation effort to quantify — if you historically took a million acre-feet and now you only take 900,000 due to conservation, you've "banked," in essence, 100,000 acre-feet. That's easier to do when the reservoir is upstream of its users.

It's not that easy in the Upper Basin ("UB"). For the UB to bank conserved water, we must reduce previous beneficial consumptive uses and then track how much of the undiverted and unconsumed water makes it to some storage pot below us. That's not as easy to quantify, but the science has started. A water bank that the Upper Division States of Wyoming, Colorado, New Mexico and Utah have discussed is one that, if needed, holds water that would have otherwise been consumed but is voluntarily conserved by some practice and stored under each state's moniker (demand management). In other words, but for a definite conservation effort, the water would not be in the river or reservoir. Then, water so conserved and "banked," year after year, will be available to the UB

states in the future for eventual release from Lake Powell for compact compliance at Lee Ferry in lieu of involuntarily turning off active uses in our states.

Why this approach? Because conserved consumptive use is the only water we can "bank" in the basin. We cannot bank water we have not historically put to a beneficial consumptive use. At the joint Select Water Committee and Water Development Commission meeting on August 17th in Gillette, mention was made that the current draft bill could be amended to allow for the banking of Wyoming's unused compact apportionment for the purpose of selling that banked water downstream. Attached to this testimony is an excerpt from a report my office provided to the Water Development Commission in 2016 which describes the legal, practical and political problems associated with attempting to sell unused apportionment.

Any attempt to bank or sell our unused apportionment will run afoul of not only both Colorado River compacts, but probably all six other states on the river, plus the Department of Interior and Mexico. Under the Colorado River Compact of 1922, we cannot withhold water we have not put to beneficial consumptive use, nor can the Lower Basin demand water from us that they cannot put to a beneficial consumptive use. For this reason I believe any attempt to store and bank Wyoming's unused apportionment, or color banked storage water with the beneficial use of "compact security water" (or something similar) absent conservation of existing consumptive uses, will not succeed. The one and only value of our unused apportionment is that it remains there to be put to use *in perpetuity*, in Wyoming, on our terms, as long as the Compacts are in place.

Any banking legislation should allow for coordination with the Upper Colorado River Commission (UCRC), as that is the body which will decide how much water is needed, and when curtailment (or release of previously banked water) is necessary, to avoid a 1922 Compact violation. Any water banking legislation must therefore be consistent with, or certainly not conflict with, banking rules agreed to by the other Upper Division States. To assure there is no conflict, the Committee should consider whether it is appropriate to legislate water banking now or wait until more is known about what those states may agree to, as well as consider seeking feedback from the UCRC. After all, we are only one of the four Upper Division states signatory to the 1948 Compact. Those states will collectively face the curtailment issue as a compact compliance effort, and that four-state working relationship is crucial to the success of any compact compliance activities which because of their nature will tend to pit the Upper Basin against the Lower Basin.

As I mentioned at the Pinedale meeting in June, water banking is a concept worth exploring. Also at that time we were in long-running talks over language in both the Upper Basin Drought Contingency Plan and the Lower Basin Drought Contingency Plan (UBDCP and LBDCP). Since the June meeting, we

have made progress in a couple areas which will bear on how a water bank in Wyoming might operate, or whether one might be needed at all—at least for compact compliance purposes.

Since June, we have achieved an agreement in principle with the Department of the Interior and the LB states to authorize storage of UB demand management water in federal reservoirs at no cost. That authorization will allow for the storage of 500,000 acre-feet until 2026. In essence, the Upper Basin will have free accounts in federal storage reservoirs for holding our conserved water. As a whole, both basins' full drought contingency plans are generally on track to be complete by the end of 2018, another accomplishment the outcome of which was less certain in mid-June. Taken together, these actions may have diminished or removed the need for a Wyoming water bank specific to the Colorado River in the near term, although we still should scrub our authorities to make certain we can make full use of such storage for Wyoming's benefit even if the storage is in a reservoir outside our state. If the Bureau of Reclamation is willing to make room (an account) in Flaming Gorge or Lake Powell for demand management water created in Wyoming, and our only task is to develop the convincing science that accurately measures conserved water and tracks it downriver (with losses) to that reservoir, separate water banking authority in Wyoming may be unnecessary. Further, it is possible in-state water banking needs could be addressed by having a "bank account" in Fontenelle Reservoir and by using existing authorities.

Elsewhere around the state, the calculus is a little different on whether formal water banking might have value. In the North Platte River Basin, for example, a bank could be used to serve municipal or industrial needs in allocation years when the Bureau of Reclamation makes a call for regulation for the benefit of the federal reservoirs.

Returning to the draft water banking bill in general, some overall observations deserve mention:

- The purpose of the bank needs to be clear. Is it to facilitate water transfers between willing buyers and sellers (an intrastate water market), or is the bank for interstate compact compliance (such as for demand management water in our part of the Colorado River Basin)?
 Or both? Or other purposes?
- Vulnerability to abandonment should be removed so that any water right is not jeopardized by participating in a bank. The underlying right must be protected. The concept is already in the draft bill but could be refined.
- Knowing how much water can be banked is critical. This will vary depending on the bank's
 purpose (intrastate willing buyer-willing seller versus robustly quantified demand management
 volumes in an interstate situation like we see in the Colorado River Basin). In general only a
 water right's consumptively used portion will be bankable, and when banked, that original use
 must be foregone.

- Conveyance losses should be assessed when the water is delivered.
- There should be no need to limit, by years, how long water can remain in a bank. Banked
 water should receive its share of annual losses (like evaporation), but if not used could remain
 banked until used or evaporated away, which may be longer than 10 years as currently
 mentioned in the draft bill.
- A banking authority should be created, which could be separate from the WWDC and SEO, but contain members from both agencies. How will its operations be funded? By a state appropriation, or seed money replaced with an administration fee added to the banking transaction costs?
- Criteria for authorized buyers should be established, as should criteria for willing seller transactions, and pricing procedures. What role will the priority of a banked water right play? The activities of a water bank must be transparent.
- Where can banked water be used, and for what beneficial uses? Can it be used outside the basin of origin or outside of the state? Can it be used for both consumptive and non-consumptive uses?
- How will banking be pursued in relation to organized irrigation districts or other similar entities? In what way will their consent be considered if banking involves water rights held by them or their members?
- Will any bank be capped as to its size? Will there be limits on how often a water right can be banked, or how much of the deposits to a bank can be withdrawn in any year?
- Can groundwater be banked? Generally this is only applicable in areas with overdrafted aquifers.
- Consider impacts to other economic sectors. If banking reduces herd sizes, restricts (or enhances) recreational opportunities, exacerbates (or mitigates) endangered species issues, or hurts (or helps) other economic sectors (tax base), those impacts should be weighed.
- Consider social impacts (quality of life, regional heritage, reduction in agricultural revenues) as appropriate.
- Existing water rights cannot be injured by the operation of a water bank.

A public involvement process may bring out other considerations too. An important task in writing water banking legislation will be to determine how much specificity to include in the bill itself, versus how much flexibility and autonomy can be left to the banking authority.

There are water banks around the west, with some more successful than others. Some efforts in neighboring states (CO being the most recent example) have been attempted, and failed. In the interest of getting the best result for Wyoming, those efforts in other states should be examined and considered.

Page 6 of 6

Once again, I thank the committee for taking on this important topic. And, thank you for considering these comments.

Regards,

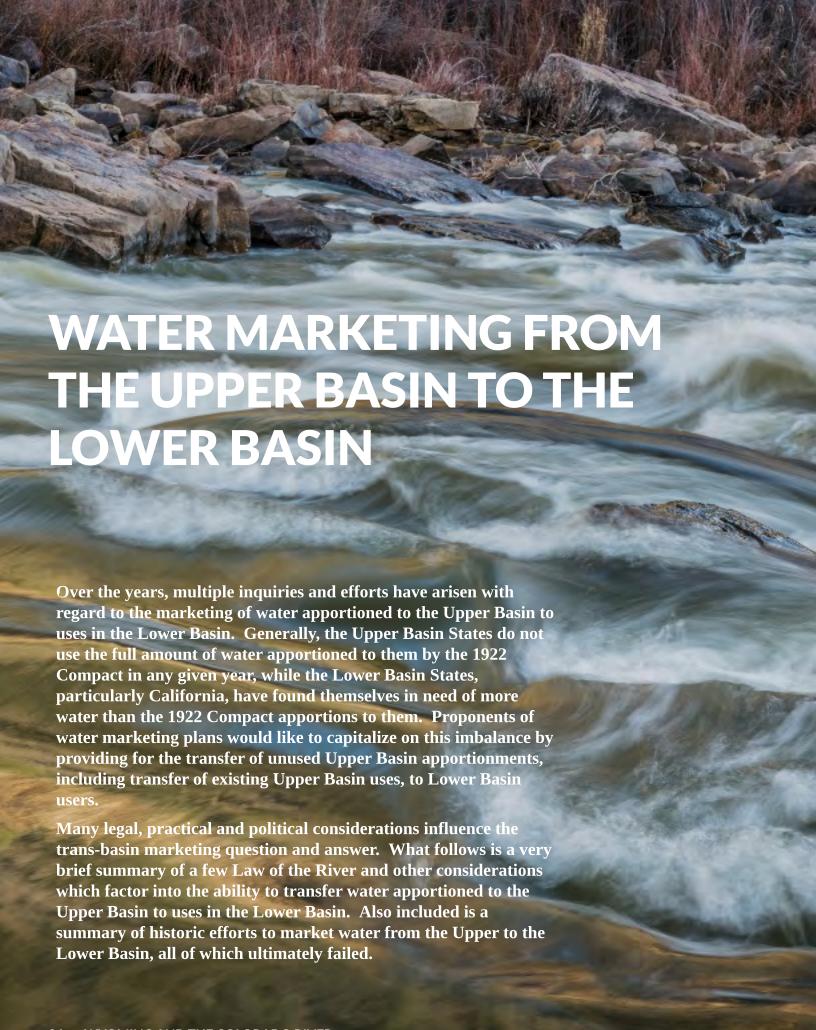
Patrick T. Tyrrell State Engineer

cc:

Matthew H. Mead, Governor

Peter K. Michael, Attorney General

Attachment



LEGAL CONSIDERATIONS REGARDING TRANS-BASIN MARKETING56



THE COLORADO RIVER COMPACT

Perhaps the strongest arguments against water transfers from the Upper to the Lower Basin are found in the language of the 1922 Compact itself. However, the 1922 Compact may not expressly require use within a particular Basin, and it does not expressly prohibit water exports.⁵⁷

The basic structure of the 1922 Compact (Articles I & II) divides the River into two Basins, apportioning the right to use a specific quantity of water to each Basin. The only transfers contemplated are those to areas outside the Colorado River System drainage area, but within the states assigned to each Basin. Also, a fundamental purpose of the 1922 Compact was a territorial split intended to protect the Upper Basin's right to develop against the rapidly developing Lower Basin. Any use in one Basin of water apportioned to the other would therefore be contrary to the Compact's basic structure and fundamental purpose.

The language in Article III(a) that apportions, in perpetuity, 7.5 MAF of water for the "exclusive beneficial consumptive use" in each Basin appears to clearly prohibit trans-basin transfers. "Exclusive" means restricted or limited to the person, group, or area concerned. Also, the term "exclusive" rarely modifies the phrase "beneficial consumptive use" in western water law and therefore tends to show that the apportionments are for the sole use of the respective Basins.⁵⁸

The rights conferred by Article III(a) are usufructuary rights, not ownership rights, and as such are accounted for at the place of use. A usufructuary water right does not confer ownership of the water itself, but rather a right to use and enjoy the water. In other words, the Upper Basin cannot market what it does not own. There is also no mechanism in the 1922 Compact to account for a use of Upper Basin water that occurs in the Lower Basin. The Compact drafters intended to create only usufructuary rights that the Compact counts against the apportionment of the Basin where use occurs. Further, Article III(e) explicitly prohibits the Upper Basin from withholding water it cannot put to beneficial use. The Upper Basin must ultimately let unused water flow downstream. Therefore, any attempt to sell the Upper Basin States' right to unused water appears impossible because Upper Basin States and users do not have any right to the water if it cannot reasonably be put to use.

Article VIII also tends to express a territorial use limitation by stating that "[a]ll other rights to beneficial use of waters of the Colorado River System shall be satisfied solely from the water apportioned to that Basin in which they are situate." Thus, those rights cannot be satisfied from water apportioned to the other Basin.

Finally, the Compact's status as federal law limits the ability to confer rights in excess of the Compact's limitations. The Compact does not explicitly—or implicitly—endorse trans-basin transfers of water apportioned by the Compact and any attempt to add to or modify its terms would require consent of Congress and the respective state legislatures.

THE UPPER COLORADO RIVER BASIN COMPACT

The 1948 Compact also contains provisions which weigh against trans-basin transfers. With regard to unused Upper Basin apportionments, the 1948 Compact, like the 1922 Compact, only apportions to each State the right to use water, not ownership of the water itself.⁵⁹ Additionally, Article III(b)(2) states that "[b]eneficial use is the basis, the measure and the limit of the right to use." In other words, the Compact apportions to each Upper Basin State only a right to use a percentage of the available water, nothing else.

The 1948 Compact also contemplates excess water use by any Upper Basin State. Article III(b)(3) allows Upper Basin States to exceed their apportionment so long as that use does not deprive another State from its apportioned use. Article XV(b) also reserves the right of each State to regulate the use and control of water within its boundaries. Accordingly, unless deprived of its apportioned use, no one Upper Basin State has authority

to prevent the use of excess water by another Upper Basin State, nor the authority to require that unused water be shepherded through another state. It would therefore be difficult, if not impossible, for any Upper Basin State to guarantee delivery of a certain amount of water at Lee Ferry at a time when another Upper Basin State needs the excess water.

Further, Article IX of the 1948 Compact explicitly allows for the transfer of water from one Upper Basin Sate to another for consumptive use so long as the amount transferred is within the apportionment of the State to which the water is transferred. The Compact does not provide for similar transfers to Lower Basin States. It does require such use be counted toward the receiving (Upper Basin) State's apportionment. The 1948 Compact contains a separate provision regarding similar transfers made to Upper Basin States for the purpose of complying with the 1922 Compact's non-depletion obligation.

ARIZONA V. CALIFORNIA



Parker Dam on the border of Arizona and California

(Photo: United States Department of Interior)

There is no Lower Basin Compact. Water deliveries below Lee Ferry must comply with the terms of the Arizona v. California Decree and must be acquired through a contract with the Secretary of the Interior. Once water passes Lee Ferry, it becomes "mainstream water," which is controlled by the federal government. Article II(B)(4) of the Decree states that "[a]ny mainstream water consumptively used within a state shall be charged to its apportionment, regardless of the purpose for which it was released." Further, Article III enjoins all Lower Basin water users from interfering with water releases authorized by the Decree. Thus, under the Decree, water purportedly delivered as a transfer from an Upper Basin State or user would be charged to the Lower Basin State's apportionment where the water is ultimately used. This result would defeat the desired purpose of any such transfer, which is to avoid charging the water use to the receiving Lower Basin State.



Some proponents of water transfers from the Upper to the Lower Basin have stated that any attempt to deny such a transfer would violate the dormant Commerce Clause. However, if Congress has consented to such a denial, it is not subject to dormant Commerce Clause scrutiny.

The Commerce Clause of the U.S. Constitution gives the federal government power over interstate commerce. But it is not just an affirmative power. The Commerce Clause also prohibits the States from enacting laws which interfere too much with interstate commerce. This prohibition is known as the dormant, or negative, Commerce Clause.

Dormant Commerce Clause issues can arise when a state interferes with the ability to export the right to use water outside of the state. In the case of Sporhase v. Nebraska decided in 1982, the U.S. Supreme Court held that a Nebraska water export statute violated the dormant Commerce Clause.⁶¹ The export statue in *Sporhase* was unconstitutional because it impermissibly interfered with interstate commerce by prohibiting a Nebraska water right holder from using the water in Colorado. In essence, states can burden or interfere with interstate commerce such as interstate water transfers only in very limited circumstances.

Many states, including Wyoming, have a water export statute.⁶² Under Wyoming's export statute, no water appropriator, or applicant to appropriate water, may transfer 1,000 AF of water or more for use outside of

Wyoming without prior approval of the Wyoming Legislature. The statute sets out numerous factors both the State Engineer and the Legislature must consider before approving, or denying, such a transfer. However, by its own terms, nothing in the export statute can be construed to interfere with Wyoming's interstate compact obligations. If the Legislature were to deny an export request made under this statute, proponents of the transfer may likely argue that the denial impermissibly interferes with interstate commerce and therefore violates the dormant Commerce Clause.

However, if Congress gives its consent to a denial of water exports, the action is immune from dormant Commerce Clause scrutiny.⁶³ Congress can provide its consent through federal law. Interstate compacts, like the 1922 and 1948 Compacts, are federal law because they are approved by Congress. Accordingly, if through those Compacts, or perhaps the many other federal laws affecting the Colorado River, Congress consented to a denial of transfers from the Upper to the Lower Basin, the denial is not subject to dormant Commerce Clause scrutiny. As describe above, both Compacts through their fundamental purpose and express language may prohibit such transfers thus reflecting Congress's consent to the export denial. With Congressional consent, the dormant Commerce Clause simply does not apply. The U.S. Supreme Court affirmed this very kind of result in a recent case related to the Red River Compact.⁶⁴

PRACTICAL CONSIDERATIONS REGARDING TRANS-BASIN MARKETING

The delivery of water from the Upper Basin to water users in the Lower Basin would raise a number of unique water delivery issues. Assuming delivery through the natural water course, the water would have to travel up to 1,400 miles and pass through multiple federal facilities which may include Flaming Gorge, Lake Powell, Lake Mead, Lake Havasu and Parker Dam. Some of the issues implicated by this kind of delivery include: (1) how the comingled water will be treated in accordance with the Law of the River, including state water rights and regulatory schemes in the Upper Basin; (2) how to compute anticipated delivery losses including evaporation; and (3) how the federal facilities with their complex authorities and constraints will be operated to handle the proposed delivery.

POLITICAL CONSIDERATIONS REGARDING TRANS-BASIN MARKETING



There also are numerous political considerations which have historically warned against water marketing from the Upper to the Lower Basin. Among them are the fear of jeopardizing water rights in the Upper Basin or even compact apportionments, the inability of the states to control an unregulated market, and the drying of agricultural land in the Upper Basin producing negative economic and social impacts.

Perhaps as important among the various political considerations would be degraded comity between the Basin States. In 1984, in response to the Galloway Proposal described later in this Report, the Upper Colorado River Commission adopted a resolution which stated, in part, that "there are serious legal and institutional problems which do not appear to be amenable to resolution and which threaten comity among the States[.]"⁶⁵ Addressing the same proposal, Arizona Governor Bruce Babbitt informed the San Diego County Water Authority that moving forward with the proposal "would be immediately countered by a lawsuit by the State of Arizona."66 Arizona's strong opposition to such a proposal was based, in part, on the fact that it has the opportunity to use any unused Upper Basin apportionment under the Law of the River. If that unused apportionment is instead transferred to a different Lower Basin user, Arizona would be precluded from that opportunity.

HISTORIC EFFORTS TO MARKET WATER BETWEEN THE UPPER AND LOWER BASIN⁶⁷

Over the last several decades, there have been multiple attempts to "market" water from Upper Basin allocations to the Lower Basin. None of these attempts have been successful, primarily because the Law of the River likely precludes such transfers, but also due to political and practical hurdles. Generally, past attempts proposed some method whereby users in the Lower Basin could make use of water apportioned to the Upper Basin without that use being counted against the Lower Basin's apportionment. Below are brief descriptions of a few of the previous attempts.⁶⁸

Galloway Proposal

In 1984, a Colorado corporation called the Galloway Group entered into an option to lease 300,000 to 500,000 AF of water per year to the San Diego County Water Authority. Galloway planned to construct reservoirs on the White or Yampa rivers in Colorado and release stored water to deliver under the lease. The released water would then flow downstream from Colorado and through the various federal facilities along the way. Galloway also met

with the Governors of Colorado, Utah, and Wyoming and presented individualized option agreements which would give each State the right to enter into a lease agreement by which that state would lease 50,000 to 100,000 AF of water to Galloway. Galloway in turn would deliver the water to entities in the Lower Basin. The proposed lease payment to the states was \$10 per acre-foot of water, or a minimum of one million dollars per year. As far as compact accounting, use of water under the

proposed leases would not be charged to the Lower Basin water users, but to the states where the water originated.

The Galloway proposal experienced immense legal and political scrutiny and pushback. Ultimately, numerous Colorado River entities, as well as the Upper Colorado River Commission, expressed opposition to the Galloway proposal and it was never realized.



Resource Conservation (RCG) Proposal

In 1989, RCG proposed to lease three classifications of "water" from the Upper Basin to the Lower Basin. "Type 1" water was water not being consumptively used in the Upper Basin but was still within each Upper Basin State's compact apportionment. "Type 2" water was water that had been developed, but was not used on a regular basis. Type 2 water included water like that stored in Fontenelle Reservoir which was under contract to industrial users but was not being consumptively used. "Type 3" was water being consumed by water rights holders in the Upper Basin, primarily irrigators. Leases of Type 3 water would require Upper Basin water users to temporarily dry up irrigated acreage on a rotating basis. Type 3 water was also the principal focus of the proposal, with payments being made both to the water right holder for foregone use and None of these attempts have to the Upper Basin State where the use been successful, primarily occurred. Payments to the states were because the Law of the River meant to fund future water likely precludes such transfers, development.

Like the Galloway Proposal, the RCG

Proposal also met many legal and
political barriers. With regard to the
proposed Type 3 water leases, the RCG
proposal also threatened to dry up
Upper Basin farmland, adversely impact local economies

and the environment, and create a bidding war for water use between the Upper and Lower Basin.

California's Conceptual Water Bank

In 1991, California was using nearly 1 MAF per year more than its compact apportionment. Drought, coupled with the likelihood that California would have to pay back overages, caused California to entertain an invitation from Colorado to begin a process of reducing its water use. The result was a proposal described in a conceptual paper which contained three primary elements:

- Through agricultural water conservation measures, within a reasonable time California would stop using water above its basic apportionment, 4.4 MAF in normal years. The other Basin States would not object to California taking more than its basic apportionment during a twenty-year period. California could continue to use water in excess of its basic apportionment until then, and operating criteria for system reservoirs would be developed that would guarantee that California could satisfy its demands.
- If the Metropolitan Water District of Southern California caused water use to exceed the Lower Basin's total apportionment, then Metropolitan

- would pay money into an established escrow account for each acre-foot of overuse. That money would be paid to the other Basin States on a percentage basis, with Wyoming's percentage proposed at 8.3%.
- The proposal would have established a state controlled interstate water bank through which Colorado River water that was being consumptively used could be transferred to users in other states. Each state would have control over participating uses in that state, and the seven Basin States would establish a uniform price.

The other Basin States were all in favor of California reducing its demand, and most were in favor of at least

discussing the escrow account component. However, the water bank concept received much less support. The other states feared that making additional water available to California would not effectively address California's overuse in the long term. Elements of California's conceptual plan were advanced through other means, such as the 2001 Interim Surplus Guidelines, and a similar water bank component exists exclusively in the Lower Basin. But, the inter-basin water bank component did not move past

preliminary negotiations between the states.

Roan Creek Proposal

but also due to political and

practical hurdles.

In 1993 Chevron and Getty oil companies advanced the Roan Creek Proposal. This proposal was similar to the Galloway Proposal in that it sought to construct a reservoir in Colorado and lease the stored water to Nevada for 30 to 50 years until it was needed for oil shale development in Colorado. Under the proposal, Nevada would have financed the project and the State of Colorado would have received \$50 per acre foot of water sold. The oil companies already owned decreed, Colorado water rights, and they asserted the right to lease the water, and argued that the project was feasible.

However, the Roan Creek Proposal suffered the same problems as the earlier Galloway Proposal, and was opposed by Colorado water officials. It was also opposed by the Southern Nevada Water Authority whose vision for future water supply did not match that of the Colorado River Board of Nevada who had entertained the proposal. Ultimately, the project did not move forward.